



MASTER 1300 MAINTENANCE INTERFACE PANEL

QUICK REFERENCE GUIDE
(version 1.0)



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Maintenance Panel Overview:

The Master 1300 Maintenance Interface Panel (MIP) is a rack mounted unit with the ability to break out every interface available on our 1300 series MIPs. The unit fits into a standard 19" rack with a 3RU height. It gets powered by a built-in 24VDC power supply capable of driving 5 amps.

Equipment Part Numbers:

Description	Part Number
Master 1300 MIP	DB10-1399-01

Incorporated Features:

Option	Included
ARINC 429 transmit	2 paralleled channels
Internal GPS	Yes
Internal compass	Yes
CEPT ports	2
ISDN ports	4
FX ports	4
Ethernet ports	9
USB pass-through ports	2
Console RS232 ports	2
Keyed TX disable	No
Front I/O connector	Yes
External LRU power input	Yes

User Interface Firmware:

The Maintenance Interface Panel runs using our proprietary firmware package named *Obsidian*. Consult the *Obsidian* user's manual for specific information on using this panel's touchscreen interface.

Default Power Button Configuration:

Power Button Name:	Function:
PWR 1	External power to J3 - pin 37 External power to J3 - pin 45 External power to J3 - pin 46 External power to J3 - pin 53 External power to J101 - pin 28 External power to J101 - pin 31

PWR 2	External power to J4 - pin 4 External power to J4 - pin 5
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Default Discrete Out Button Configuration:

Discrete Out Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J3 - pin 22	DISCRETE 1	“GROUNDED” = Grounded “OPEN” = Open	WiFi	Low
2	J3 - pin 14	DISCRETE 2	“GROUNDED” = Grounded “OPEN” = Open	Mobile	High
3	J3 - pin 7	DISCRETE 3	“GROUNDED” = Grounded “OPEN” = Open	WOW	Low
4	J3 - pin 2	DISCRETE 4	“GROUNDED” = Grounded “OPEN” = Open	Mute	High
5	J3 - pin 8	DISCRETE 5	“GROUNDED” = Grounded “OPEN” = Open	X	X
6	J3 - pin 24	DISCRETE 6	“GROUNDED” = Grounded “OPEN” = Open	X	X
7	J3 - pin 4	DISCRETE 7	“GROUNDED” = Grounded “OPEN” = Open	X	X
8	J3 - pin 9	DISCRETE 8	“GROUNDED” = Grounded “OPEN” = Open	X	X
9	J3 - pin 5	DISCRETE 9	“GROUNDED” = Grounded “OPEN” = Open	X	X
10	J3 - pin 6	DISCRETE 10	“GROUNDED” = Grounded “OPEN” = Open	X	X
11	J3 - pin 1	DISCRETE 11	“GROUNDED” = Grounded “OPEN” = Open	X	X
12	J3 - pin 15	DISCRETE 12	“GROUNDED” = Grounded “OPEN” = Open	X	X
13	J3 - pin 16	DISCRETE 13	“GROUNDED” = Grounded “OPEN” = Open	X	X
14	J3 - pin 3	DISCRETE 14	“GROUNDED” = Grounded “OPEN” = Open	X	X
15	J3 - pin 17	DISCRETE 15	“GROUNDED” = Grounded “OPEN” = Open	X	X
16	J3 - pin 25	DISCRETE 16	“GROUNDED” = Grounded “OPEN” = Open	X	X

Default Discrete In Button Configuration:

Discrete In Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J1 - pin 10	DISCRETE 1	“GROUNDED” = Grounded “OPEN” = Open	Data	High
2	J1 - pin 9	DISCRETE 2	“GROUNDED” = Grounded “OPEN” = Open	LRU power	High
3	J1 - pin 4	DISCRETE 3	“GROUNDED” = Grounded “OPEN” = Open	Fault	High
4	J1 - pin 8	DISCRETE 4	“GROUNDED” = Grounded “OPEN” = Open	X	X
5	J1 - pin 3	DISCRETE 5	“GROUNDED” = Grounded “OPEN” = Open	X	X
6	J1 - pin 14	DISCRETE 6	“GROUNDED” = Grounded “OPEN” = Open	X	X
7	J1 - pin 2	DISCRETE 7	“GROUNDED” = Grounded “OPEN” = Open	X	X
8	J1 - pin 7	DISCRETE 8	“GROUNDED” = Grounded “OPEN” = Open	X	X
9	J1 - pin 1	DISCRETE 9	“GROUNDED” = Grounded “OPEN” = Open	X	X
10	J1 - pin 6	DISCRETE 10	“GROUNDED” = Grounded “OPEN” = Open	X	X
11	J1 - pin 13	DISCRETE 11	“GROUNDED” = Grounded “OPEN” = Open	X	X
12	J1 - pin 5	DISCRETE 12	“GROUNDED” = Grounded “OPEN” = Open	X	X
13	J1 - pin 12	DISCRETE 13	“GROUNDED” = Grounded “OPEN” = Open	X	X
14	J1 - pin 11	DISCRETE 14	“GROUNDED” = Grounded “OPEN” = Open	X	X

Panel Pinout Overview:

The next sections show all of the pinouts for the Maintenance Interface Panel. Items highlighted in yellow indicate a direct pass-through to the J101 connector. The pin designations are configurable through a loadable file; therefore, the pins may be used for any actual signals as desired. The ones listed here are suggested or named by default. Each signal must be below a maximum of 1 ampere each.

Panel J1 Connector Pinouts:

J1, 57 pin female CPC TE Connectivity, P/N: 1-796329-1 Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins Backshell: TE Connectivity, P/N: 182930-1			
Pin 1	Discrete 9 Input (from LRU)	Pin 21	Forward ISDN 3 Port, Pin 5
Pin 2	Discrete 7 Input (from LRU)	Pin 22	DTE 1 DSR (LRU extended) (J101, pin 9)
Pin 3	Discrete 5 Input (from LRU)	Pin 23	Ground
Pin 4	Discrete 3 Input (from LRU)	Pin 24	DTE 1 CTS (LRU extended) (J101, pin 8)
Pin 5	Discrete 12 Input (from LRU)	Pin 25	DTE 1 Rx (LRU extended) (J101, pin 3)
Pin 6	Discrete 10 Input (from LRU)	Pin 26	Forward ISDN 2 Port, Pin 4
Pin 7	Discrete 8 Input (from LRU)	Pin 27	Forward ISDN 1 Port, Pin 4
Pin 8	Discrete 4 Input (from LRU)	Pin 28	Forward ISDN 4 Port, Pin 4
Pin 9	Discrete 2 Input (from LRU)	Pin 29	Forward ISDN 3 Port, Pin 4
Pin 10	Discrete 1 Input (from LRU)	Pin 30	Ground
Pin 11	Discrete 14 Input (from LRU)	Pin 31	Ground
Pin 12	Discrete 13 Input (from LRU)	Pin 32	DTE 1 RTS (LRU extended) (J101, pin 10)
Pin 13	Discrete 11 Input (from LRU)	Pin 33	DTE 1 DCD (LRU extended) (J101, pin 4)
Pin 14	Discrete 6 Input (from LRU)	Pin 34	Forward ISDN 2 Port, Pin 6
Pin 15	DTE 1 DTR (LRU extended) (J101, pin 25)	Pin 35	Forward ISDN 1 Port, Pin 6
Pin 16	DTE 1 RI (LRU extended) (J101, pin 2)	Pin 36	Forward ISDN 4 Port, Pin 6
Pin 17	DTE 1 Tx (LRU extended) (J101, pin 17)	Pin 37	Forward ISDN 3 Port, Pin 6
Pin 18	Forward ISDN 2 Port, Pin 5	Pin 38	Forward FXS 2 Port, Pin 2
Pin 19	Forward ISDN 1 Port, Pin 5	Pin 39	Forward FXS 2 Port, Pin 3
Pin 20	Forward ISDN 4 Port, Pin 5	Pin 40	Forward FXO 2 Port, Pin 3

J1, 57 pin female CPC TE Connectivity, P/N: 1-796329-1			
Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins			
Backshell: TE Connectivity, P/N: 182930-1			
Pin 41	Forward FXO 2 Port, Pin 2	Pin 49	Forward CEPT-E1 1 Port, Pin 1
Pin 42	Forward ISDN 2 Port, Pin 3	Pin 50	Forward CEPT-E1 1 Port, Pin 2
Pin 43	Forward ISDN 1 Port, Pin 3	Pin 51	Forward CEPT-E1 1 Port, Pin 6
Pin 44	Forward ISDN 4 Port, Pin 3	Pin 52	Forward CEPT-E1 2 Port, Pin 2
Pin 45	Forward ISDN 3 Port, Pin 3	Pin 53	Forward CEPT-E1 2 Port, Pin 6
Pin 46	Forward FXS 1 Port, Pin 3	Pin 54	Forward FXS 1 Port, Pin 2
Pin 47	Forward FXO 1 Port, Pin 3	Pin 55	Forward CEPT-E1 1 Port, Pin 3
Pin 48	Forward FXO 1 Port, Pin 2	Pin 56	Forward CEPT-E1 2 Port, Pin 1
		Pin 57	Forward CEPT-E1 2 Port, Pin 3

Panel J2 Connector Pinouts:

J2, 28 pin female CPC TE Connectivity, P/N: 206038-1			
Mates With: TE Connectivity, P/N: 206039-1 Pin P/N: M39029/64-369 pins			
Backshell: TE Connectivity, P/N: 182661-1			
Pin 1	DTE 4 CTS (LRU extended) (J101, pin 50)	Pin 12	FW HS 1 HS (LRU extended) (J101, pin 41)
Pin 2	DTE 4 RI (LRU extended) (J101, pin 55)	Pin 13	FW HS 1 Rx+ (LRU extended) (J101, pin 54)
Pin 3	FW HS 1 RI (LRU extended) (J101, pin 48)	Pin 14	FW HS 1 Tx+ (LRU extended) (J101, pin 53)
Pin 4	DTE 4 RTS (LRU extended) (J101, pin 42)	Pin 15	DTE 4 DCD (LRU extended) (J101, pin 13)
Pin 5	DTE 4 Tx (LRU extended) (J101, pin 49)	Pin 16	Ground
Pin 6	DTE 4 DTR (LRU extended) (J101, pin 51)	Pin 17	Ground
Pin 7	FW HS 1 PU (LRU extended) (J101, pin 40)	Pin 18	Ground
Pin 8	FW HS 1 RX- (LRU extended) (J101, pin 47)	Pin 19	Ground
Pin 9	DTE 4 DSR (LRU extended) (J101, pin 35)	Pin 20	FW HS 1 Tx- (LRU extended) (J101, pin 57)
Pin 10	DTE 4 Rx (LRU extended) (J101, pin 43)	Pin 21	DTE 3 DSR (LRU extended) (J101, pin 20)
Pin 11	Ground	Pin 22	DTE 3 RX (LRU extended) (J101, pin 26)

J2, 28 pin female CPC TE Connectivity, P/N: 206038-1 Mates With: TE Connectivity, P/N: 206039-1 Pin P/N: M39029/64-369 pins Backshell: TE Connectivity, P/N: 182661-1					
Pin 23	DTE 3 CTS (LRU extended)	(J101, pin 27)	Pin 26	DTE 3 DCD (LRU extended)	(J101, pin 18)
Pin 24	DTE 3 RI (LRU extended)	(J101, pin 34)	Pin 27	DTE 3 RTS (LRU extended)	(J101, pin 11)
Pin 25	DTE 3 DTR (LRU extended)	(J101, pin 12)	Pin 28	DTE 3 Tx (LRU extended)	(J101, pin 19)

Panel J3 Connector Pinouts:

J3, 63 pin male CPC TE Connectivity, P/N: 206455-2 Mates With: TE Connectivity, P/N: 205842-1 Pin P/N: M39029/63-368 pins Backshell: TE Connectivity, P/N: 182930-1			
Pin 1	Discrete 11 Switched Lo (to LRU)	Pin 18	ARINC 429 Tx - 2A (to LRU)
Pin 2	Discrete 4 Switched Lo (to LRU)	Pin 19	ARINC 429 Tx - 2B (to LRU)
Pin 3	Discrete 14 Switched Lo (to LRU)	Pin 20	ARINC 429 Rx - 1B (from LRU)
Pin 4	Discrete 7 Switched Lo (to LRU)	Pin 21	Ground
Pin 5	Discrete 9 Switched Lo (to LRU)	Pin 22	Discrete 1 Switched Lo (to LRU)
Pin 6	Discrete 10 Switched Lo (to LRU)	Pin 23	Ground
Pin 7	Discrete 3 Switched Lo (to LRU)	Pin 24	Discrete 6 Switched Lo (to LRU)
Pin 8	Discrete 5 Switched Lo (to LRU)	Pin 25	Discrete 16 Switched Lo (to LRU)
Pin 9	Discrete 8 Switched Lo (to LRU)	Pin 26	A-sync RS232 2 Tx (to LRU)
Pin 10	ARINC 429 Tx - 1A (to LRU)	Pin 27	A-sync RS232 2 Rx (from LRU)
Pin 11	ARINC 429 Tx - 1B (to LRU)	Pin 28	Ground
Pin 12	ARINC 429 Rx - 1A (from LRU)	Pin 29	Ground
Pin 13	Ground	Pin 30	Ground
Pin 14	Discrete 2 Switched Lo (to LRU)	Pin 31	Ground
Pin 15	Discrete 12 Switched Lo (to LRU)	Pin 32	Ground
Pin 16	Discrete 13 Switched Lo (to LRU)	Pin 33	Ground
Pin 17	Discrete 15 Switched Lo (to LRU)	Pin 34	Ground

<p style="text-align: center;">J3, 63 pin male CPC TE Connectivity, P/N: 206455-2</p> <p style="text-align: center;">Mates With: TE Connectivity, P/N: 205842-1 Pin P/N: M39029/63-368 pins</p> <p style="text-align: center;">Backshell: TE Connectivity, P/N: 182930-1</p>			
Pin 35	A-sync RS232 1 Tx (to LRU)	Pin 50	Ground
Pin 36	A-sync RS232 1 Rx (from LRU)	Pin 51	FW HS 2 Rx+ (LRU extended) (J101, pin 45)
Pin 37	Switched Power (channel 1)	Pin 52	FW HS 2 Tx+ (LRU extended) (J101, pin 44)
Pin 38	Ground	Pin 53	Switched Power (channel 1)
Pin 39	Ground	Pin 54	DTE 2 DCD (LRU extended) (J101, pin 16)
Pin 40	Ground	Pin 55	DTE 2 RTS (LRU extended) (J101, pin 24)
Pin 41	Ground	Pin 56	DTE 2 CTS (LRU extended) (J101, pin 7)
Pin 42	Ground	Pin 57	FW HS 2 HS (LRU extended) (J101, pin 39)
Pin 43	Ground	Pin 58	FW HS 2 PU (LRU extended) (J101, pin 52)
Pin 44	FW HS 2 Tx- (LRU extended) (J101, pin 36)	Pin 59	FW HS 2 Rx- (LRU extended) (J101, pin 56)
Pin 45	Switched Power (channel 1)	Pin 60	DTE 2 DSR (LRU extended) (J101, pin 15)
Pin 46	Switched Power (channel 1)	Pin 61	DTE 2 RX (LRU extended) (J101, pin 14)
Pin 47	Ground	Pin 62	DTE 2 DTR (LRU extended) (J101, pin 33)
Pin 48	DTE 2 Tx (LRU extended) (J101, pin 32)	Pin 63	FW HS 2 RI (LRU extended) (J101, pin 46)
Pin 49	DTE 2 RI (LRU extended) (J101, pin 1)		

Panel J4 Connector Pinouts:

<p style="text-align: center;">J4, 9 pin male CPC TE Connectivity, P/N: 206486-1</p> <p style="text-align: center;">Mates With: TE Connectivity, P/N: 206485-1 Pin P/N: M39029/63-368 pins</p> <p style="text-align: center;">Backshell: TE Connectivity, P/N: 1-206062-6</p>			
Pin 1	No Connection	Pin 5	Switched Power (channel 1)
Pin 2	No Connection	Pin 6	Ground
Pin 3	Ground	Pin 7	No Connection
Pin 4	Switched Power (channel 1)	Pin 8	No Connection
		Pin 9	Ground

Panel J101 Connector Pinouts:

<p align="center">J101, 57 pin female CPC TE Connectivity, P/N: 1-796329-1</p> <p align="center">Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins</p> <p align="center">Backshell: TE Connectivity, P/N: 182930-1</p>			
Pin 1	DTE 2 RI (LRU extended)	Pin 27	DTE 3 CTS (LRU extended)
Pin 2	DTE 1 RI (LRU extended)	Pin 28	Switched Power (channel 1)
Pin 3	DTE 1 Rx (LRU extended)	Pin 29	Ground
Pin 4	DTE 1 DCD (LRU extended)	Pin 30	Ground
Pin 5	ARINC 429 Rx - 1A (from LRU)	Pin 31	Switched Power (channel 1)
Pin 6	ARINC 429 Rx - 1B (from LRU)	Pin 32	DTE 2 Tx (LRU extended)
Pin 7	DTE 2 CTS (LRU extended)	Pin 33	DTE 2 DTR (LRU extended)
Pin 8	DTE 1 CTS (LRU extended)	Pin 34	DTE 3 RI (LRU extended)
Pin 9	DTE 1 DSR (LRU extended)	Pin 35	DTE 4 DSR (LRU extended)
Pin 10	DTE 1 RTS (LRU extended)	Pin 36	FW HS 2 Tx- (LRU extended)
Pin 11	DTE 3 RTS (LRU extended)	Pin 37	Ground
Pin 12	DTE 3 DTR (LRU extended)	Pin 38	Ground
Pin 13	DTE 4 DCD (LRU extended)	Pin 39	FW HS 2 Hookswitch (LRU extended)
Pin 14	DTE 2 Rx (LRU extended)	Pin 40	FW HS 1 PU (LRU extended)
Pin 15	DTE 2 DSR (LRU extended)	Pin 41	FW HS 1 Hookswitch (LRU extended)
Pin 16	DTE 2 DCD (LRU extended)	Pin 42	DTE 4 RTS (LRU extended)
Pin 17	DTE 1 Tx (LRU extended)	Pin 43	DTE 4 Rx (LRU extended)
Pin 18	DTE 3 DCD (LRU extended)	Pin 44	FW HS 2 Tx+ (LRU extended)
Pin 19	DTE 3 Tx (LRU extended)	Pin 45	FW HS 2 Rx+ (LRU extended)
Pin 20	DTE 3 DSR (LRU extended)	Pin 46	FW HS 2 RI (LRU extended)
Pin 21	Ground	Pin 47	FW HS 1 Rx- (LRU extended)
Pin 22	Ground	Pin 48	FW HS 1 RI (LRU extended)
Pin 23	Ground	Pin 49	DTE 4 Tx (LRU extended)
Pin 24	DTE 2 RTS (LRU extended)	Pin 50	DTE 4 CTS (LRU extended)
Pin 25	DTE 1 DTR (LRU extended)	Pin 51	DTE 4 DTR (LRU extended)
Pin 26	DTE 3 Rx (LRU extended)	Pin 52	FW HS 2 PU (LRU extended)

<p>J101, 57 pin female CPC TE Connectivity, P/N: 1-796329-1</p> <p>Mates With: TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins</p> <p>Backshell: TE Connectivity, P/N: 182930-1</p>			
Pin 53	FW HS 1 Tx+ (LRU extended)	Pin 55	DTE 4 RI (LRU extended)
Pin 54	FW HS 1 Rx+ (LRU extended)	Pin 56	FW HS 2 Rx- (LRU extended)
		Pin 57	FW HS 1 Tx- (LRU extended)

Contact Us:

Please feel free to contact us if you need any additional help with the operation of this device.

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